

**BLM IDAHO POST-FIRE RECOVERY PLAN
EMERGENCY STABILIZATION AND BURNED AREA REHABILITATION**

DIETRICH BUTTE FIRE

**BLM/TWIN FALLS DISTRICT/SHOSHONE FIELD OFFICE
IDAHO STATE OFFICE**

FIRE BACKGROUND INFORMATION

Fire Name	Dietrich Butte
Fire Number	JV6H
District/Field Office	Twin Falls/Shoshone
Admin Number	LLIDT03000
State	Idaho
County(s)	Lincoln
Ignition Date/Cause	7/3/2015
Date Contained	7/4/2015

Jurisdiction	Acres
BLM	2,436
<i>State</i>	1
<i>Private</i>	0
<i>Other (Historic Waters)</i>	0

Total Acres	2,437
Total Costs	\$212,000
Costs to LF2000000	\$171,000
Costs to LF3200000	\$41,000

Status of Plan Submission (check one box below)

<input checked="" type="checkbox"/>	Initial Submission of Complete Plan
<input type="checkbox"/>	Amendment
<input type="checkbox"/>	Updating or Revising the Initial Submission

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON THE FIRE

The Dietrich Butte fire started from human causes in the Dietrich Butte grazing allotment north of Dietrich, Idaho. The fire burned a total of 2,437 acres in Lincoln County. Of those acres that burned 2,436 were on BLM administered land and 1 acre on Idaho State lands. The fire burned primarily in the South Butte pasture, and a small part of the North Butte pasture, and affected approximately 5,156 AUMs.

The fire burned in low-elevation Wyoming big sagebrush habitat. Greater sage-grouse Preliminary General Habitat (PGH) burned a total of 300 acres. The area is also pronghorn winter range. Roughly half of the burn area has been seeded in past rehabilitation efforts and should recover without a seeding effort. However, cheatgrass, an invasive annual grass, threatens to expand to areas not previously seeded, and noxious weeds pose a serious threat across the entire burn area.

LAND USE PLAN CONSISTENCY

The following treatments are proposed under this Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) plan.

Emergency Stabilization

S2 Ground Seeding (drill)

S3 Aerial Seeding

S5 Weed Treatments

S7 Fence/Gate/Cattleguards

S12 Closures (area, OHV, livestock)

S13 Monitoring

Burned Area Rehabilitation

R5 Weed Treatments

R7 Fence/Gate/Cattleguard

The applicable land use plan for the ES and BAR project area is the 1985 Monument Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS). The Monument RMP states that lands administered by the BLM in this area will be managed in order to:

- 1) Maintain or improve wildlife habitat for crucial mule deer winter range;
- 2) Improve poor or fair condition rangeland;
- 3) Maintain, improve, protect, and restore watershed conditions; and
- 4) Control the spread of noxious weeds on public lands and eradicate them where possible and economically feasible.

The proposed treatments in this ES and BAR plan conform to the Monument RMP. The ID Team developed objectives and treatments which respond to the identified issues and concerns. The BLM would evaluate this plan based on the success or failure in meeting these objectives.

The project is also in conformance with the analysis of Alternative E, the selected alternative, in

the 2008 Final Fire, Fuels and Related Vegetation Management Direction Plan Amendment (FMDA) and Environmental Impact Statement (EIS). The Final FMDA/EIS amends all Land Use Plans for the Shoshone Field Office (except the Craters Management Plan), to provide direction and guidance for fire/fuels and related vegetation management.

The treatments outlined in this plan are also consistent with the treatments analyzed in the Programmatic Emergency Stabilization and Rehabilitation Plan and Environmental Assessment, NEPA # DOI-BLM-ID-T000-2011-0001-EA.

COST SUMMARY TABLES

Emergency Stabilization (LF2200000):

Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY15	FY16	FY17	FY18	Total Cost
S1	Planning (Project Mangt)	WM's	2		\$0	\$10,000	\$10,000	\$10,000	\$30,000
S2	Ground Seeding	Acres	770	\$89.61	\$45,000	\$24,000	\$0	\$0	\$69,000
S3	Aerial Seeding	Acres	1,218	\$17.24	\$12,000	\$9,000	\$0	\$0	\$21,000
S5	Noxious Weeds	Acres	2,436	\$2.05	\$0	\$5,000	\$0	\$0	\$5,000
S7	Protective Fencing	Miles	4.0	\$7,750.00	\$0	\$25,000	\$0	\$6,000	\$31,000
S12	Closures	No.	1	\$0.00	\$0	\$0	\$0	\$0	\$0
S13	Monitoring	Acres	2,436	\$2.05	\$0	\$5,000	\$5,000	\$5,000	\$15,000
TOTAL COSTS					\$57,000	\$78,000	\$15,000	\$21,000	\$171,000

Burned Area Rehabilitation (LF3200000):

Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY16	FY17	FY18	Total Cost
R1	Planning (Project Mangt)	WM's	1		\$2,000	\$2,000	\$2,000	\$6,000
R5	Noxious Weeds	Acres	2,436	\$2.05	\$0	\$5,000	\$5,000	\$10,000
R7	Fence Repair	Miles	5.0	\$5,000.00	\$25,000	\$0	\$0	\$25,000
TOTAL COSTS					\$27,000	\$7,000	\$7,000	\$41,000

PART 2 – POST-FIRE RECOVERY ISSUES AND TREATMENTS

Issues relate to resource problems caused by the wildfire and include both the immediate wildfire effects as well as effects predicted to occur as a result of the wildfire. Determining the appropriate funding code must be based on the scope of the issue, purpose of the treatment, and the availability of funds.

EMERGENCY STABILIZATION ISSUES AND TREATMENTS

Emergency Stabilization Objectives: “determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property or to stabilize and prevent unacceptable degradation to natural and cultural resources resulting from the effects of a fire.” 620DM3.4

Emergency Stabilization Priorities: 1). Human Life and Safety, and 2). Property and unique biological (designated Critical Habitat for Federal and State listed, proposed or candidate threatened and endangered species) and significant heritage sites. 620DM3.7

ES Issue 1 - Human Life and Safety. Not applicable.

ES Issue 2 - Soil/Water Stabilization.

Protection Fences

The Dietrich Butte fire burned primarily through the South Butte pasture of the Dietrich Butte allotment. First priority for protection from livestock grazing is the proposed seeding areas in the South Butte pasture. The proposed drill seeding is adjacent to unburned areas and would be closed until treatment objectives are met. The proposed protection fence would be critical for protection of the drill seeding and stability of the remaining livestock grazing permits. The protection fence would prohibit livestock grazing in the seeded portion South Butte pasture.

Treatment Activity: S7 Fence/Gate/Cattleguard

- A. *Treatment Activity Description.* The objective of this treatment is to construct approximately 4 miles of protection fence in the South Butte pasture. The protection fence would be constructed to BLM fence standards.
- B. *How does the treatment relate to damage or changes caused by the fire?* The wildfire burned through the South Butte and North Butte pastures of the Dietrich Butte allotment disrupting the future grazing system. Priority for protection was given to proposed drill seedings. A protection fence would be required in the South Butte pasture. Approximately 15% of the pasture will require seeding treatment. The protection fence would allow stabilization and recovery of the burn area and drill seeded areas while maintaining the integrity of the livestock grazing system.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* New fence construction contracts typically run \$10,000 per mile, including removal. The cost of damage to the vegetation resource from livestock grazing adjacent unburned areas during the recovery period would be much higher.

Livestock Closure

The Dietrich Butte burn area would be rested from livestock grazing until monitoring shows that treatment objectives have been met. This rest would provide the opportunity for existing vegetation resources to stabilize the burn area and seeding efforts to establish. The burn area primarily affected the South Butte and North Butte pastures of the Dietrich Butte grazing allotment.

Treatment/Activity: S12 Livestock Closure

- A. *Treatment Activity Description.* The Dietrich Butte burn area would be rested from livestock grazing until monitoring shows that ES/BAR rehabilitation objectives have been met.
- B. *How does the treatment relate to damage or changes caused by the fire?* The purpose of this treatment is to rest the burn area from livestock grazing to provide the opportunity for existing vegetation resources to stabilize the burn area and seeding efforts to establish. Establishment of a perennial plant community would inhibit the expansion of annual vegetation and stabilize soil resources.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* No costs under ES are associated with the livestock closures.

ES Issue 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species.

Wildlife Habitat

The Dietrich Butte burn negatively affected 300 acres of sage grouse PGH. The burn also negatively affected crucial winter range habitat for pronghorn. The loss of sagebrush cover reduced important browse and thermal cover for wintering big game. Sage grouse and pronghorn are dependent on sagebrush plant communities for their year round habitat needs, especially winter browse. Due to the wildfire impacts, current conditions are not optimum for sage grouse or big game habitat. High fire intensities have impacted seed bank sources for sagebrush habitat recovery, therefore previous habitat conditions are not expected to recover naturally without a seeding effort.

Treatment Activity: S3 Aerial Seeding

- A. *Treatment/Activity Description.* Approximately 1,218 acres of the Dietrich Butte fire would be aerial strip seeded with Wyoming big sagebrush and yarrow in the winter of 2015/2016 (FY16). The sagebrush seeding would be strip seeded over the proposed drill seeding. Strip seeding of sagebrush allows for complete coverage of the burn area at a more economical cost and in the long term establishes a desirable mosaic habitat pattern.
- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of this treatment is to reestablish a desirable perennial plant community that more closely matches the structural and species composition and diversity of the native plant community to help achieve a healthy functioning rangeland. Accelerating the rate of

reestablishment of sagebrush is important to maintaining the value of the area as sage grouse PGH, and pronghorn wintering habitat. Sagebrush is also an important component of suitable habitat for a number of sensitive sagebrush obligate species. The wildfire intensity impacted existing sagebrush cover which would not recover naturally without providing additional seed source.

- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Prior to the fire the proposed sagebrush aerial seeding area contained a native sagebrush plant community that provided crucial wildlife habitat. Without accelerated establishment of desirable sagebrush cover it is expected that wildlife habitat will be negatively affected in the long term by reduction of plant community structure and diversity. High fire intensities have also temporarily reduced the annual vegetation seed bank allowing for an increased probability of establishing sagebrush habitat by aerial seeding. The proposed treatment is consistent with current policy for sage-grouse habitat management. Contracting costs for aerial application are typical for the Shoshone Field Office area. Sagebrush seed costs can vary from year to year dependent on availability, but generally average about \$10/acre.

Dietrich Butte Aerial Sagebrush Seed Mix - 1,218 Acres

Species and Variety	Seed Rate Lbs/Acre
1. 'Wyoming' Big Sagebrush	1.0 (bulk)
2. 'Eagle' Western Yarrow	0.10

ES Issue 4 - Critical Heritage Resources.

Not Applicable.

ES Issue 5 - Invasive Plants and Weeds.

The following is a list of common pre-burn vegetation in order of dominance. The list was developed using field surveys of unburned islands of vegetation and range management trend monitoring plot data. This list is for vegetation determined to be in the burn areas that either have not been treated or it has been seeded and the existing grass seeding is in declining condition reflected by a lack of midsize perennial bunchgrass presence, abundance or vigor.

Common Pre-burn Vegetation in Order of Dominance:

Sandberg bluegrass, *Poa secunda*
 Cheatgrass, *Bromus tectorum*
 Tumblemustard, *Sisymbrium altissimum*
 Crested wheatgrass, *Agropyron cristatum*
 Gray rabbitbrush, *Ericameria nauseosa*
 Wyoming big sagebrush, *Artemisia tridentata ssp. wyomingensis*

Noxious weeds:

Rush skeletonweed, *Chondrilla juncea*
 Diffuse knapweed, *Centaurea diffusa*
 Russian knapweed, *Acroptilon repens*

Scotch thistle, Onopordum acanthium

Ecological Site(s):

Loamy 8-12", Wyoming Big Sagebrush/Bluebunch wheatgrass-Thurber's needlegrass

Soil-vegetation correlation information indicates that the burn area is located primarily on a Loamy 8-12" Wyoming big sagebrush / bluebunch wheatgrass – Thurber's needlegrass ecological site. The potential natural plant community on this site would be comprised of a Wyoming big sagebrush shrub overstory with principal understory plants dominated by bluebunch wheatgrass.

Rush skeletonweed and diffuse knapweed are the two most common noxious weeds, and can dominate areas following a burn without treatment. Scotch thistle is also scattered throughout the burn. Russian knapweed is also present in small, heavily infested patches on the east side of the burn near the canal.

Fire Intensity and Vegetation

The majority of the fire was characterized by light to moderate fire intensity. Vegetation in the fire area was primarily crested wheatgrass from past seedings, sagebrush and scattered native herbaceous grasses. Cheatgrass is dominant in the center of the burn, and will continue to expand and threaten soil stability and biological integrity, if not drill seeded. The entire area could be susceptible to the expansion of cheatgrass and noxious weeds without treatment.

Diffuse knapweed, scotch thistle, and rush skeletonweed are the primary noxious weeds of concern with high potential to increase within the burned area and surrounding rangeland. Russian knapweed is present near the canal on the east edge of the burn. These weeds were documented during the fire reconnaissance surveys, as well as data from ongoing weed treatments. The current state of the infestation is treatable if done within the next three growing seasons. Without a noxious weed control effort, rush skeletonweed and diffuse knapweed will significantly increase negatively affecting pronghorn winter range habitat and livestock forage capabilities. If an emergency treatment is not implemented the economic impact to natural resources and the local economy will be significant. The costs to suppress noxious weeds after a significant expansion has occurred increases exponentially. Spot herbicide spraying and biological control would be proposed under rehabilitation to suppress the expansion of these weeds. Initial mapping and reconnaissance would be completed in 2016, and weed control would be conducted in 2016-2018.

A primary objective of ES and BAR is to restore structure and function to fire damaged ecosystems. Carbon sequestration is one of many ecological functions provided by healthy diverse plant communities.

Left untreated, the burned area would become dominated by cheatgrass, an invasive annuals, and noxious weeds. The minimal root systems of these annuals accumulate little if any organic matter into the soil profile. Additionally, their flammability substantially increases fire frequency, thereby moving carbon from the soil profile and releasing it into the atmosphere.

Conversely, reestablishing perennial vegetation through natural recovery and noxious weed treatments within the burned area will have a positive benefit to climate change by the ability of these plants to sequester carbon. Deep rooted grasses in particular contribute substantial organic material into the soil profile both from their extensive root systems and recycle approximately ½ of their root mass annually, thereby moving carbon from the atmosphere into the soil profile, providing long term carbon storage.



1 - Nearby 2013 Brown Butte Fire, before weed treatment. Bright green is rush skeletonweed.

Treatment/Activity: S2 Ground Seeding

- A. *Treatment/Activity Description.* Approximately 770 acres in the Dietrich Butte allotment would be drill seeded with a mixture of grasses and forbs. Seed would be applied at the rates shown in the following table.

Dietrich Butte Drill Seeding

Species and Variety	Seed Rate Lbs/Acre
Grasses	
1. 'Vavilov' II Siberian Wheatgrass	3.00
2. 'Discovery' Snake River Wheatgrass	1.50
3. 'Alkar' Tall Wheatgrass	1.00
4. 'Craters' Bluegrass	0.30
Forbs	
1. Palmer Penstemon	0.10
2. 'Eski' Sanfoin	2.00

- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of this treatment is to reestablish a desirable herbaceous perennial plant community that more closely matches the structural and species composition and diversity of the native plant community to help achieve a healthy, functioning rangeland. Establishment of a perennial plant community would inhibit the expansion of annual vegetation and noxious weeds (USDA FS 2004). The seed mix is designed to provide species and structural diversity important to sage-grouse and other sagebrush-steppe obligate wildlife.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Prior to the fire the proposed drill seed area contained a native sagebrush plant community with an annual vegetation understory. This proposed drill seed area is at high risk for degradation by noxious weeds and invasive plants if left untreated. The proposed treatment is consistent with current policy for fuels management and sage-grouse habitat management. The species selected are adapted to low elevation (8-12" ppt.) zones (USDI 2008). The ground seeding costs can vary year to year (approximately \$50-\$100/acre) but are typical for projects of this type.

Treatment Activity: S5 Noxious Weeds

- A. *Treatment/Activity Description.* Noxious weed inventory and control within the burned area would be done in the first year following the fire to directly treat the expected weeds. All actions would be in accordance with the Shoshone District Noxious Weed Management Plan, Environmental Assessment #ID050-EA-92031. Diffuse knapweed, scotch thistle, Russian knapweed, and rush skeletonweed are the primary noxious weeds targeted.
- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. In addition, biological control agents for knapweed would be utilized in areas not easily accessible to spraying equipment (rocky outcrops). Rush skeletonweed, diffuse knapweed, Russian knapweed, and scotch thistle infestations are present in the area and are expected to increase due to the removal of existing plant cover by the wildfire. Treatments would be conducted for one year under ES.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Weed treatments in this Field Office typically run about \$2.05 per acre. Field work would be

combined with other weed treatments in the area for cost efficiency.

BURNED AREA REHABILITATION ISSUES AND TREATMENTS

Burned Area Rehabilitation Objectives. 1) To evaluate actual and potential long-term post-fire impacts to critical cultural and natural resources and identify those areas unlikely to recover naturally from severe wildland fire damage; 2) To develop and implement cost-effective plans to emulate historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with approved land management plans, or if that is infeasible, then to restore or establish a healthy, stable ecosystem in which native species are well represented; and 3) To repair or replace minor facilities damaged by wildland fire. 620DM3.4

Burned Area Rehabilitation Priorities. 1) To repair or improve lands damaged directly by a wildland fire; and 2) To rehabilitate or establish healthy, stable ecosystems in the burned area. 620DM3.8

BAR Issue 1 - Lands Unlikely to Recover Naturally.

Not Applicable.

BAR Issue 2 - Weed Treatments.

Noxious Weeds

Diffuse knapweed, scotch thistle, and rush skeletonweed are the primary noxious weeds of concern with high potential to increase within the burned area and surrounding rangeland. Russian knapweed is present near the canal on the east edge of the burn. These weeds were documented during the fire reconnaissance surveys, as well as data from ongoing weed treatments. The current state of the infestation is treatable if done within the next three growing seasons. Without a noxious weed control effort, rush skeletonweed and diffuse knapweed will significantly increase negatively affecting pronghorn winter range habitat and livestock forage capabilities. If an emergency treatment is not implemented the economic impact to natural resources and the local economy will be significant. The costs to suppress noxious weeds after a significant expansion has occurred increases exponentially. Spot herbicide spraying and biological control would be proposed under rehabilitation to suppress the expansion of these weeds. Initial mapping and reconnaissance would be completed in 2016, and weed control would be conducted in 2016-2018.

Treatment Activity: R5 Noxious Weeds

- A. *Treatment/Activity Description.* Noxious weed inventory and control within the burned area would be done the second and third year following the fire to directly treat the expected weeds. All actions would be in accordance with the Shoshone District Noxious Weed Management Plan, Environmental Assessment #ID050-EA-92031. Diffuse knapweed and rush skeletonweed are the primary noxious weeds targeted.
- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of

this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. In addition, biological control agents for knapweed would be utilized in areas not easily accessible to spraying equipment (rocky outcrops). Knapweed, scotch thistle, and rush skeletonweed infestations are present in the burn area and are expected to increase due to the removal of existing plant cover by the wildfire. Noxious weed control would be conducted the second and third year under BAR.

- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Weed treatments in this Field Office typically run about \$2.05 per acre. Field work would be combined with other weed treatments in the area for cost efficiency.

BAR Issue 3 - Tree Planting. Not applicable.

BAR Issue 4 - Repair/Replace Fire Damage to Minor Facilities.

Livestock Management Fences

Approximately 5 miles of interior pasture fence was damaged or destroyed by the fire, as well as the small enclosure surrounding the Dietrich Well, which is less than one acre. Damaged wire, corners and braces would be repaired or replaced. The repairs would be needed to maintain the integrity of the grazing systems and keep adjacent livestock grazing from entering the burn area during the rest period.

R7 Fence/Gate/Cattleguard

- A. *Treatment/Activity Description.* The objective of this treatment is to repair or replace approximately 5 miles of interior livestock management fence damaged by the fire. Damaged wood corners and braces would be replaced with steel posts. Damaged wire would also be repaired. The management fences would be constructed to BLM fence standards.
- B. *How does the treatment relate to damage or changes caused by the fire?* The wildfire damaged fences associated with the livestock management of the affected allotment. Reconstruction and repair of management fences damaged by the fire would maintain the future integrity of the existing livestock grazing system. Repair of damaged management fences would also help to manage vegetation recovery.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Fence repair contracts typically run \$5,000 per mile. This cost is typically lower than construction of new fence. Damaged wood stretch points and corners would be replaced with steel pipe thus increasing the longevity of the structures and would be resistant to future wildfire damages.

PART 3 – DETAILED TREATMENT COST TABLE

Emergency Stabilization		Units	FY15	FY16	FY17	FY18	Total Costs
S1	<i>Planning (Plan Prep/Project Mangt)</i>						
	Project Management Field Office	WM's		5,000	5,000	5,000	15,000
	Project Management State Office	WM's		5,000	5,000	5,000	15,000
	Total		0	10,000	10,000	10,000	30,000
S2	<i>Ground Seeding (drill)</i>						
	Equipment Mobilization	Total		4,000			4,000
	Contract	Total		10,000			10,000
	Contract Administration	WM's		1,700			1,700
	Drill FOR & Use Rate	Total		4,300			4,300
	Seed mobility, mixing & handling	Total		4,000			4,000
	Cultural Clearances	Total	22,000				22,000
RSW	Seed	Total	21,475				21,475
RSW	Seed Surcharge	Total	1,525				1,525
	Total		45,000	24,000	0	0	69,000
S3	<i>Aerial Seeding</i>						
	Contract	Total		7,300			7,300
	Contract Administration	WM's		700			700
	Seed mobility, mixing & handling	Total		1,000			1,000
RSW	Seed	Total	11,400				11,400
RSW	Seed Surcharge	Total	600				600
	Total		12,000	9,000	0	0	21,000
S5	<i>Noxious Weeds</i>						
	Labor	Acres		4,000			4,000
	Travel/Vehicles	Total		500			500
	Supplies/Materials	Total		500			500
	Total		0	5,000	0	0	5,000
S7	<i>Protective Fence/Cattleguard</i>						
	Fence Removal	Total				6,000	6,000
	Fence Material	Total		12,000			12,000
	Travel/Vehicles	Total		600			600
	Supplies/Materials	Total		400			400
	Contract	Total		12,000			12,000
	Total		0	25,000	0	6,000	31,000
S13	<i>Monitoring</i>						
	Labor	WM's		5,000	5,000	5,000	15,000
	Total		0	5,000	5,000	5,000	15,000
	EMERGENCY STABILIZATION TOTALS		\$57,000	\$78,000	\$15,000	\$21,000	\$171,000

Rehabilitation		Units	FY16	FY17	FY18	Total Costs
R1	<i>Planning (Plan Prep/Project Mangt)</i>					
	Project Management Field Office	WM's	2,000	2,000	2,000	6,000
	Total		2,000	2,000	2,000	6,000
R5	<i>Noxious Weeds</i>					
	Labor	WM's		4,000	4,000	8,000
	Travel/Vehicles	Total		500	500	1,000
	Supplies/Materials	Total		500	500	1,000
	Total		0	5,000	5,000	10,000
R7	<i>Fence/Gate/Cattle Guard</i>					
	Fence Material	Total	10,000			10,000
	Contract	Total	15,000			15,000
	Total		25,000	0	0	25,000
	BURNED AREA REHABILITATION TOTALS		\$27,000	\$7,000	\$7,000	\$41,000

PART 4 – SEED LISTS

Drill and Aerial Seed Lists

Species	% PLS	Seeds/lb. (bulk)	Total Seeds/Acre (bulk)	PLS Seeds/ac.	PLS Seeds/sq. ft.	Drill Seeding (acres)	Lbs/Acre	Total Pounds	Cost per lb	Total Costs
Vavilov II Siberian WG	0.85	220,000	660,000	561,000	12.88	770	3.0	2,300	2.85	6,555.00
Discovery SnakeRiver WG	0.85	170,000	255,000	216,750	4.98	770	1.5	1,150	4.60	5,290.00
Alkar Tall WG	0.85	80,000	80,000	68,000	1.56	770	1.0	800	1.85	1,480.00
Craters Bluegrass	0.70	917,000	275,100	192,570	4.42	770	0.3	250	7.25	1,812.50
Palmer Penstemon	0.76	60,000	6,000	4,560	0.10	770	0.1	100	28.50	2,850.00
Eski Sainfoin	0.85	28,000	56,000	47,600	1.09	770	2.0	1,550	2.25	3,487.50
TOTALS					25.03		7.9	6,150		21,475.00
Species	% PLS	Seeds/lb. (bulk)	Total Seeds/Acre (bulk)	PLS Seeds/ac.	PLS Seeds/sq. ft.	Aerial Seeding (acres)	Lbs/Acre	Total Pounds	Cost per lb	Total Costs
Wyoming Sage	0.12	2,500,000	2,500,000	300,000	6.89	1,218	1.0	1,200	7.20	8,640.00
Eagle Western Yarrow	0.85	270,000	27,000	22,950	0.53	1,218	0.1	150	18.35	2,752.50
TOTALS					7.41		1.10	1,350		11,392.50

PART 5 - NATIVE/NON-NATIVE PLANT WORKSHEET – N/A

A. Proposed Native Plants in Seed Mixtures (Both ES & BAR Treatments)

1. Are the native plants proposed for seeding adapted to the ecological sites in the burned area?

☒ **Yes** ☐ **No**

Rationale: The proposed native species are all adapted to the ecological sites within the proposed seeding area. All of these species have been extensively utilized in similar ecological sites within the Shoshone Field Office management area.

2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?

☒ **Yes** ☐ **No**

Rationale: Native seed proposed for use is generally available in the required quantities. Drill seeding would not occur until the fall of 2015 which should allow seed quantities to be more available.

3. Is the cost and/or quality of the native seed reasonable given the project size and approved field unit management and ESR Plan objectives?

☒ **Yes** ☐ **No**

Rationale: The native seed proposed for use has been increasingly utilized in recent years for stabilization, rehabilitation and restoration. The demand has resulted in increased production and decreased price.

4. Will the native plants establish and survive given the environmental conditions and the current or future competition from other species in the seed mix or from exotic plants?

☒ **Yes** ☐ **No**

Rationale: The native taxa proposed for seeding have exhibited the ability to establish and persist in similar ecological sites in the Shoshone Field Office.

5. Will the current or proposed land management (e.g. wildlife populations, recreation use, livestock, etc.) after the seeding establishment period maintains the seeded native plants in the seed mixture?

☒ **Yes** ☐ **No**

Rationale: The seeded area will be rested until management objectives for the treatment are met for establishment prior to resumption of livestock use. The current livestock management grazing system should effectively maintain the plant community over the long term.

B. Proposed Non-native Plants in Seed Mixture (Both ES & BAR Treatments) – N/A

General Note:

1. Is the use of non-native plants necessary to meet objectives, e.g., consistent with applicable approved field unit management plans?

☒ **Yes** ☐ **No**

Rationale: The use of the proposed non-native plant species is in conformance with the goals and objectives outlined in the 2013 Programmatic Emergency Stabilization and Rehabilitation Plan. The proposed use of non-native plants is not located within a Wilderness Study Area.

2. Will non-native plants meet the objective(s) for which they are planted without unacceptably diminishing diversity and disrupting ecological processes (nutrient cycling, water infiltration, energy flow, etc.) in the plant community?

☒ Yes ☐ No

Rationale: The proposed treatment area supported a sagebrush community with an herbaceous understory of exotic annual grasses, noxious weeds, and remnant native grasses and forbs. The natural successional processes and interspecific competition which normally occur within a native plant community have been altered by the introduction and establishment of exotic annual grasses and noxious weeds such as cheatgrass, diffuse knapweed, and rush skeletonweed. The proposed non-native plants can effectively compete with these species. Establishing a competitive perennial plant species with a mixture of native and non-native species will promote a greater degree of resiliency within the plant community and restore more natural successional processes. The surrounding area is past seedings which are predominantly crested wheatgrass (*Agropyron cristatum*). The selected seed mix is anticipated to blend in to the surrounding vegetation communities, and persist under the management of the area.

3. Will non-native plants stay on the site they are seeded and not significantly displace or interbreed with native plants?

☒ Yes ☐ No

Rationale: The proposed introduced plant species have been used in seedings in the Shoshone Field Office area for over 40 years. The seedings have occurred in range sites similar to those which were burned. Incidental establishment of the proposed species may occur outside of the treatment area by the seasonal movement of various animals, but this occurrence is not common nor has it been observed to result in the long-term displacement and dominance of native plant species or communities. Also, the plant community surrounding the proposed treatment area is predominantly crested wheatgrass seedings; the proposed seed mix is unlikely to expand into those areas.

The objective of the proposed seed mix, as a whole, is to stabilize and rehabilitate the burned area, and compete against noxious weeds and invasive plant species, while also providing functional structural habitat for wildlife. If this action is not implemented, invasive annual grasses and noxious weeds will expand, outcompeting any native vegetation components still present, as well as exponentially increase the costs of long-term restoration treatments that may occur in out years. This treatment will reduce costs of future restoration treatments, as well as provide an ecologically functional intermediary vegetation community.

C. Proposed Seed Species – Natives & Non-Natives (Both ES & BAR Treatments)

Non-native Plants	Native Plants
‘Vavilov’ II Siberian Wheatgrass	‘Discovery’ Snake River Wheatgrass
‘Alkar’ Tall Wheatgrass	‘Craters’ Bluegrass
‘Eski’ Sanfoin	Palmer Penstemon
	‘Eagle’ Western Yarrow
	Wyoming big sagebrush

PART 6–COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/ Spec. #	Planned ES Action (LF20000ES)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S2	Ground seeding (Drill)	Acres	770	\$69,000	80
S3	Aerial seeding	Acres	1,218	\$21,000	80
S5	Noxious Weeds	Acres	2,436	\$5,000	90
S7	Fence/Gate/Cattleguards	Miles	4	\$31,000	100
S12	Closures (OHV, livestock, area)	#	1	\$0	100
S13	Monitoring	Acres	2,436	\$15,000	100
TOTAL COSTS:				\$141,000	

Action/ Spec. #	Planned BAR Action (LF32000BR)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R5	Noxious Weeds	Acres	2,436	\$10,000	90
R7	Fence/Gate/Cattleguard	Miles	5	\$25,000	100
TOTAL COSTS:				\$35,000	

B. Cost Risk Summary

1. Are the risks to natural resources and private property **acceptable** as a result of the fire if the following actions are taken?

Proposed Action: Yes ☒ No ☐ *Rationale for answer:* The noxious weed treatments and drill seeding/aerial seeding treatments would protect the burn area and adjacent BLM lands against further expansion of noxious weeds, as well as stabilize soils and replace lost wildlife habitat. Repairing fences and infrastructure is necessary to maintain the integrity of the grazing system in the allotment and to keep livestock from the burned area. Carbon sequestration functionality would also be improved through establishment of a diverse perennial plant community.

No Action: Yes ☐ No ☒ *Rationale for answer:* Wildlife habitat on adjacent unburned lands would be compromised with the expansion of noxious weeds and complete loss of pre-burn vegetation cover. Carbon sequestration functionality and consistency is reduced through increased noxious weeds and invasive annual grasses, and reduced perennial vegetation composition.

Alternative(s): Yes ☐ No ☐ *Rationale for answer:* N/A

2. *Is the probability of success of the proposed action, alternatives or no action acceptable given their costs?*

Proposed Action: Yes ☒ No ☐ *Rationale for answer:* Monitoring and observations of recent weed control efforts and seedings in similar soils and precipitation zones indicate that success would be high. Normal climatic conditions and the exclusion of livestock grazing for on-site vegetation recovery and establishment would increase the probability of success.

No Action: Yes ☐ No ☒ *Rationale for answer:* The burned area has a high potential for expansion of noxious weeds. There is also high potential for invasion of noxious weeds into adjacent unburned areas.

Alternative(s): Yes ☐ No ☐ *Rationale for answer:* N/A

3. *Which approach will most cost-effectively and successfully attain the objectives and therefore is recommended for implementation from a Cost/Risk Analysis standpoint?*

Proposed Action: ☒

No Action: ☐

Alternative(s): ☐

Comments: The proposed action is the most cost effective way to attain the objectives identified in the plan, and therefore is recommended for implementation from a Cost/Risk Analysis standpoint.

C. Risk of Resource Value Loss or Damage

No Action - Treatments Not Implemented (check one)

Resource Value	N/A	None	Low	Medium	High
Unacceptable Loss of Topsoil					X
Weed Invasion					X
Unacceptable Loss of Vegetation Diversity					X
Unacceptable Loss of Vegetation Structure					X
Unacceptable Disruption of Ecological Processes					X
Off-site Sediment Damage to Private Property			X		
Off-site Threats to Human Life		X			
Other-loss of Access Road Due to Plugged Culverts	X				

Proposed Action - Treatments Successfully Implemented (check one)

Resource Value	N/A	None	Low	Medium	High
Unacceptable Loss of Topsoil			X		
Weed Invasion			X		
Unacceptable Loss of Vegetation Diversity			X		
Unacceptable Loss of Vegetation Structure			X		
Unacceptable Disruption of Ecological Processes			X		
Off-site Sediment Damage to Private Property			X		
Off-site Threats to Human Life		X			
Other-loss of Access Road Due to Plugged Culverts	X				

PART 7–MONITORING PLAN

Monitoring and evaluation of ESR treatments would be implemented to ensure that treatments are properly implemented, effective, and maintained. Monitoring methods may be qualitative or quantitative, and would be commensurate with the level of treatment complexity and extent. Monitoring and evaluation information would provide adaptive management feedback to improve ESR treatment performance. Monitoring would be the responsibility of the BLM interdisciplinary team. An annual monitoring summary report would be submitted documenting treatment effectiveness.

Treatment/Activity: S2 Ground Seeding and S3 Aerial Seeding

1) Treatment Objectives:

The objective of the seeding treatment is to establish a perennial dominated plant community within 3 years. The following grass and forb density objectives are based on ecological site potential.

The drill seed treatment would be considered successful if:

The seeded grass, forb, and shrub species reach densities of:

- 1) 3 plants per square meter for grasses;
- 2) 0.5 plants per square meter for forbs.

The aerial seed treatment of sagebrush would be considered effective if:

- 1) Sagebrush seedlings average 0.1 seedlings per square meter across all density plots; or
- 2) In qualitative surveys they are found to be common.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period:

The methods used to monitor the treated area would include field observations, photo plots, and cover transects utilizing the line-point intercept and density plot methods. Plots would be randomly established through the treated area. Effectiveness monitoring of the ground seeding will be done for a period of three growing seasons.

Treatment/Activity: S5 and R5 Noxious Weed Treatments

1) Treatment Objectives:

Diffuse knapweed, scotch thistle, and rush skeleton weed are the primary weeds of concern in the burn area. Russian knapweed is also present in isolated occurrences. It is expected that these weeds would expand their range as a result of the fire. Since these weed species are not uniformly distributed across the burn area a quantifiable objective cannot be determined until the first year inventory occurs.

The objective for the first growing season is to conduct an inventory of the burn area and treat any noxious weeds discovered on the burn area.

The objective for the second and third years is to decrease the acreage needing treatment as determined by the first year inventory.

2) Describe how implementation will be monitored:

During the first growing season treatment, a detailed map of location, weed species sprayed, and the amount of herbicide utilized would be documented. The second and third year objective would be measured by the number and size of locations sprayed and the amount of herbicide utilized.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

At the end of three years of treatment, the herbicide spray data would be summarized. If further treatment is required beyond the third year then the responsibility for treatment would be forwarded to the Twin Falls District normal weed spraying program.

Treatment/Activity: S12 Livestock Closure

1) Treatment Objectives:

Exclusion of livestock is critical for the recovery of burned vegetation or establishment. The burn area would be closed to livestock grazing to promote recovery of burned vegetation as specified in the 2013 Programmatic Emergency Stabilization and Rehabilitation Plan and Environmental Assessment (NEPA # DOI-BLM-ID-T000-2011-0001-EA), until treatment and natural recovery objectives are met. The closed portion of the burn area in the South Butte Pasture of Dietrich Butte Allotment would be maintained and ensured via the proposed protection fence. Rotation and/or rest would close the remaining burn areas in the North Butte pasture until natural recovery and aerial seeding of sagebrush objectives are met.

2) Describe how implementation will be monitored:

Resumption of livestock grazing would ultimately depend on monitoring and meeting of ESR plan objectives. Recovery of the treated area would be monitored for availability to grazing on a yearly basis. Natural recovery objectives are listed below. The monitoring for grazing availability and recommendations for opening the burn area to livestock would be the responsibility of an interdisciplinary team.

Implementation is monitored through rangeland management administration. The burned area will be closed to grazing.

3) Describe how effectiveness will be monitored, how it will be measured, and within what

time period.

Natural recovery areas would be considered recovered and available for grazing when:

- Recovered herbaceous vegetation is providing sufficient ground cover to protect the site from accelerated erosion and expansion/conversion to annual grasses and noxious weeds.
- The amount of bare mineral soil (lacking cover of plants, litter, or biological soil crust) is within 10% of what would be expected for the site. Recommended study methods include line-point intercept or step point cover methods and photo points.

A qualitative visual assessment of the following would also consider:

- Plant vigor (perennial plants)
- Precipitation information during the non-growing (winter) and growing (spring through early summer) seasons
- Competition with invasive annual plants and noxious weed species

The drill seed treatment area would be considered recovered and available for grazing when:

- 1) The amount of bare mineral soil (lacking cover of plants, litter, or biological soil crust) is within 10% of what would be expected for the site,
- 2) The majority of desired herbaceous perennial plants are producing seed, and
- 3) The plants must also have a developed root system extensive enough to provide for soil stabilization and prevent uprooting when grazed, especially when soils are moist.

An evaluation of collected monitoring data is completed documenting that reintroducing grazing to the area would not cause a downward trend in vegetation recovery.

Treatment Activity: R7 and S7 Fence/Gate/Cattleguard

1) Treatment Objectives:

The objective of this treatment is to repair or replace approximately 5 miles of interior livestock management fence damaged by the fire, as well as a small enclosure around the Dietrich Butte Well. Damaged wood corners and braces would be replaced with steel posts. Damaged wire would also be repaired. The management fences would be constructed to BLM fence standards. Approximately 4 miles of protection fence would also be constructed in the South Butte pasture, in order to protect the seeding treatments from livestock grazing until treatment objectives are met.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

Repair and replacement of damaged fences will be monitored through contract administration. Repairs will be documented in a project file “as built” and filed in the project file. Repairs will be completed within the first year of the fire.

The effectiveness of protection fences will be monitored during use supervision of the allotment.

PART 8 - MAPS

1. Fire Perimeter/Land Status
2. Burned Management Fences/Other Structures (guzzlers, signs, etc.)
3. Fire Frequency
4. Greater-sage grouse Habitat
5. Drill and Aerial Seedings

PART 9 – REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
Team Leader	Danelle Nance (BLM, Shoshone FO)	07/17/2015
Operations	Scott Uhrig (BLM, Twin Falls DO)	07/17/2015
NEPA Compliance & Planning	Lisa Cresswell (BLM, Shoshone FO)	07/17/2015
Cultural Resources/Archeologist	Lisa Cresswell (BLM, Shoshone FO)	07/17/2015
Rangeland Mgt. Specialist	Dan Patten (BLM, Shoshone Field FO)	07/17/2015
Wildlife Biologist	Gary Wright (BLM, Shoshone FO)	07/17/2015
GIS Specialist	Cassie Mavencamp (BLM, Shoshone FO)	07/20/2015

PLAN APPROVAL

“The Agency Administrator is responsible for developing, implementing, and evaluating emergency stabilization and rehabilitation plans, treatments, and activities.” 620 DM 3.5C

FIELD OFFICE MANAGER

DATE

FUNDING APPROVAL

The funding of ES treatments is approved through the appropriate administrative approval level in coordination with the National Office Budget Shop. As funding is available, ES funding requested within a plan that totals below \$100,000 may be approved by the State Director, while ES funding of \$100,000 and above must be approved by the WO. If the ES funding cap is reached, all ES funding will be approved through the National Office in coordination with State ES&R Coordinators to determine highest priority projects. Funding of all BAR treatments is accomplished through a scoring process and is dependent on accurate entries into NFPORS. All funding is approved and allocated on a year-by-year basis.